PC10373US

Appln. No.: 10/505,387

Amendment Dated January 16, 2009 Reply to Office Action of October 16, 2008

<u>Amendments to the Claims:</u> This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

- 1-12 (Cancelled)
- 13. (Currently Amended) Method for generating a corrected nominal current in a pulse-width-modulated current control, in particular for electronic brake control units of motor vehicles,

wherein a measured current is determined at a certain predetermined time during an actuation period and a compensation is executed by way of at least one compensation variables current value determined in response to temperature and a supply voltage, which are the compensation current value being added to the measured current so that the corrected nominal current is available for current control, and wherein the compensation variables are stored in a table and an interpolation is carried out for temperatures lying between two table values and supply voltages lying between two table values in order to determine the compensation variable.

- 14 (Previously Presented) Method as claimed in claim 13, wherein the supply voltage dependency is compensated.
- 15. (Cancelled)
- 16. (Currently Amended) Method as claimed in claim 13, wherein several loads are driven, and the compensation variables are current value is fixed individually for each load, in particular for each valve coil.
- 17 18. (Cancelled)
- 19. (Previously Presented) Method as claimed in claim 13,

wherein an averaging operation is executed by way of the present nominal value and previous nominal values to compensate abrupt changes in nominal values.

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20. (Currently Amended) Method as claimed in claim 1327,

wherein the temperature is determined indirectly by way of the Duty Cycle adjusted by current control.

21. (Previously Presented) Method as claimed in claim 19,

wherein a sum of a coil resistor and a resistor of a connected semiconductor component for driving the load is taken into consideration for the determination of temperature.

22. (Previously Presented) Method as claimed in claim 19,

wherein the Duty Cycles of several PWM periods are averaged for temperature measurement or the determination of the indirect temperature value.

23. (Previously Presented) Method as claimed in claim 19,

wherein the nominal resistance value of the coil is used at the presently measured or estimated temperature of the control unit for the average value of the indirectly determined temperature quantity directly after the switching on of the ignition, in particular after the ignition's re-start.

- 24. (Previously Presented) The method as claimed in claim 13 wherein the method is implemented as a program in a microcomputer or microcomputer system which is electrically connected to a PWM circuit.
- 25. (Previously Presented) The method as claimed in claim 13 wherein the method is implemented at least in part by digital logic.
- 26. (New) Method as claimed in claim 13 wherein compensation current values are stored in a table and an interpolation is carried out for supply voltages lying between two table values in order to determine the at least one compensation current value.
- 27. (New) Method as claimed in claim 13 further comprising determining a second compensation current value based on temperature.

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28. (New) Method as claimed in claim 27 wherein compensation current values are stored in a table and an interpolation is carried out for temperatures lying between two table values in order to determine the second compensation current value.

29. (New) A method for generating a corrected nominal current in a pulse-width-modulated current control for a current actuated valve, the method comprising the steps of:

determining a measured current at a predetermined time during an actuation period of the valve;

determining at least one compensation current value based on a supply voltage; and adjusting the measured current by the compensation current value to generate the corrected nominal current.